

CURRICULUM VITAE

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BORN DECEMBER 27, 1991

CONTACT

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EDUCATION AND ACADEMIA

- 07/19 – today **Postdoctoral researcher**
Research Group in Nonlinear Algebra of Prof. Bernd Sturmfels
Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany
- 10/15 – 05/19 **Doctoral studies in Mathematics**
Thesis: *Topological Computation of Stokes Data of Weighted Projective Lines*
Advisors: Prof. Marco Hien and Prof. Maxim Smirnov
University of Augsburg, Germany
- 10/13 – 07/15 **Master of Science with Honors** in Mathematics within the program *TopMath*
Thesis: *From Turrittin–Levelt to the lower semi-continuity of families of \mathcal{D} -modules*
Technical University of Munich, Germany
- 10/12 – 09/13 **Additional certificate: Elite Bachelor** in the programm *TopMath* of the *Elite Network of Bavaria*
University of Augsburg/Technical University of Munich, Germany
- 10/10 – 08/13 **Bachelor of Science** in Mathematics, minor subject: Philosophy
Thesis: *Irregularity and spectral norm of differential modules*
University of Augsburg, Germany

PUBLICATIONS

- 2021 **Combinatorial Differential Geometry of x^P** (with R. Ait El Manssour).
arXiv:2102.03182, 2021.
- 2021 **Maximum Likelihood Estimation from a Tropical and a Bernstein–Sato Perspective** (with R. van der Veer). arXiv:2101.03570, 2021.
- 2020 **Algebraic Analysis of the Hypergeometric Function ${}_1F_1$ of a Matrix Argument**
(with P. Görlach and C. Lehn). *Beiträge zur Algebra und Geometrie*, November 2020.
- 2020 **Algebraic Analysis of Rotation Data** (with M. F. Adamer, A. C. Lőrincz, and B. Sturmfels). *Algebraic Statistics* 11(2):189–211, 2020.
- 2019/2021 **\mathcal{D} -Modules and Holonomic Functions** (with B. Sturmfels), arXiv:1910.01395. To be published in the proceedings of the *Math+ Fall School in Algebraic Geometry*.
- 2020 **Topological computation of Stokes matrices of some weighted projective lines**. *Manuscripta Mathematica*, April 2020.

TEACHING AND WORK EXPERIENCE

- 12/2020 – today **Equal Opportunities Representative**
Max Planck Institute for Mathematics in the Sciences, Leipzig, Germany
- 09/15 – 06/19 **Scientific assistant** of Prof. Marco Hien at the University of Augsburg, Germany
▷ Tutoring diverse lectures in Mathematics
▷ Tutoring and organizing a help desk for students of Mathematics
▷ Tutoring and organizing a study program for pupils

- 08/13 – 08/15 **Assistant in the project *Best MINT*** of the Bavarian State Ministry for Education, Science and the Arts at the University of Augsburg, Germany
- 08/12 – 09/12 **Intern** at *SGL Carbon* in Meitingen, Germany
Mathematical modeling of the extrusion of ceramic materials
- 10/11 – 07/13 **Scientific assistant** at the University of Augsburg, Germany
Tutoring lectures on Linear Algebra and Commutative Algebra

TALKS, CONFERENCE CONTRIBUTIONS, AND SCIENTIFIC ORGANIZING

- 07/2021 **Mathematical Congress of the Americas**
Session: Differential operators in algebraic geometry and commutative algebra
Invited talk: *TBA*
Universidad de Buenos Aires, Argentina
- 02/2021 **Onlineseminar on Applied Algebra and Analysis**
Invited Talk: *MLE from a Tropical and a Bernstein–Sato Perspective*
TU Braunschweig and Osnabrück University, Germany
- 01/2021 **OSCAR rings in the new year**
Software presentation: *Singular* in OSCAR
MPI MiS, Leipzig, Germany
- 11/2020 **Workshop Computational Algebra 2020**
Invited Talk: *Algebraic Analysis of the Hypergeometric Function ${}_1F_1$ of a Matrix Argument*
TU Kaiserslautern, Germany
- 09/2020 **Seminar on Nonlinear Algebra**
Talk: *Algebraic tools for Topological Data Analysis*
MPI MiS, Leipzig, Germany Chemnitz University of Technology, Germany
- 07/2020 **ICMS 2020 Session: Computational Algebraic Analysis**
Scientific organization together with Dr. Christoph Koutschan
TU Braunschweig, Germany
- 03/2020 **Seminar Number Theory and Algebraic Geometry**, invited by Prof. Nero Budur
Talk: *D-modules: Linear PDEs from an algebraic perspective*
KU Leuven, Belgium
- 11/2019 **Seminar on Symbolic Computation**, invited by Dr. Christoph Koutschan
Talk: *Computational Algebraic Analysis*
RICAM, Linz, Austria
- 11/2019 **Geometric Analysis Seminar**, invited by Prof. A. Bernig
Talk: *D-modules and applications*
Goethe University of Frankfurt, Germany
- 10/2019 **European Women in Mathematics: German Chapter Conference 2019**
Talk: *Computational Algebraic Analysis*
MPI MiS, Leipzig, Germany
- 09/2019 **Fall School: Varieties, Polyhedra, Computation**
Exercise session accompanying a lecture series on *D-modules and holonomic functions* delivered by Prof. Bernd Sturmfels
Berlin Mathematics Research Center, Germany

- 09/2019 **Seminar: Computing with D -modules II**
 Scientific organization of the seminar together with Prof. Christian Sevenheck
 Talk: *Probability distributions as holonomic functions*
 MPI MiS, Leipzig, Germany
- 08/2019 **Seminar: Computing with D -modules**
 Talk: *How to compute? Part 2: Plural*
 MPI MiS, Leipzig, Germany
- 05/2019 **Otto–Sturmfels-Day**
 Invited talk: *Algebraic Analysis: \mathcal{D} -Modules and PDEs*
 MPI MiS, Leipzig, Germany
- 04/2019 **Workshop: \mathcal{D} -modules and the Riemann–Hilbert-correspondence**
 Talk: *Riemann–Hilbert for \mathcal{D} -modules arising from weighted projective lines*
 Humboldt University of Berlin, Germany
- 10/2018 **Séminaire de géométrie algébrique**, invited by Prof. Étienne Mann
 Talk: *Topological Computation of Stokes Data*
 University of Angers, France
- 07/2018 **Oberseminar Algebra und Theoretische Mathematik**, invited by Prof. Christian Sevenheck
 Talk: *Topological Computation of Stokes Data of Weighted Projective Lines*
 Chemnitz University of Technology, Germany

SCHOLARSHIPS AND ACHIEVEMENTS

- 09/16 – 05/19 **German Academic Scholarship Foundation**
 Doctoral scholarship
- 11/2015 **Hurwitz Society of the Technical University of Munich**
 Honoring for the Master's degree passed with distinction
- 10/12 – 09/15 **Max Weber-Program of the German Academic Scholarship Foundation**
 Scholarship
- 04/11 – 03/13 **Deutschlandstipendium**

FURTHER QUALIFICATIONS

- Language ▷ **German** (native language)
 ▷ **English** (fluent)
 ▷ **French** (advanced, level C1)
 ▷ **Italian** (upper intermediate, level B2)
- Teaching **Acquisition of the *Certificate for Teaching in Higher Education of the Bavarian Universities***
 Diverse soft skill courses on rhetoric, voice training, moderation, team heading, mentoring students, etc. in the program *ProfiLehre*
- Interests ▷ **Music** (playing the piano, base guitar, and guitar, singing)
 ▷ **Sports** (hiking, yoga, climbing, racing bike, swimming)
 ▷ **Arts** (painting)